

RESPONSE TO OFFICE ACTION MAILED AUGUST 28, 2003
Patent Application No. 09/734,432

1. (currently amended) A passive identification system, comprising:

a body part input means for generating ~~an information~~ an information signal impressed with characteristics of a body part;

an index generation means ~~to said body part to obtain~~ for dynamically generating one or more indices from the information signal, wherein the one or more indices are created by processing the information signal; and

a linking means to link at least one of said indices to an identity for the body part.

2. (currently amended) The passive identification system of claim 1 wherein

~~said index~~ an index from the one or more indices of said index generation means is a function of a subset of data of the information signal.

3. (currently amended) ~~A~~ The passive identification system of claim 1 wherein

said index generation means comprises means to generate said one or more indices ~~each~~ from different partial information from said information signal or transformation of said information signal.

4. (currently amended) The passive identification system of claim 1 wherein

said information signal is an information signal impressed with characteristics of a body part including a human eye.

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5. (currently amended) A private biometric identification system process,
comprising:

a body part input means for generating an information signal impressed with
characteristics of a body part;

an index generation means ~~to said body part input to obtain~~ for dynamically
generating one or more indices from the information signal;

Information an information hiding means ~~to said body part input and for hiding at~~
least one index to obtain transformed biometric ~~templates; templates;~~

~~Transmission~~ a transmission means for transmitting of at least one transformed
biometric template and index ~~pair pair; and~~

~~Verification~~ a verification means for verifying of transformed biometric template
with template linked by associated index.

6. (original) The private biometric system of claim 5 wherein said information
signal is generated from multiple readings of said body part.

7. (currently amended) The private biometric identification system of claim 5
wherein said information hiding means ~~is~~ includes a transformation of said information
signal exclusive-ored with an index.

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8. (currently amended) The private biometric identification system of claim 5 wherein said verification means further includes is a hamming weight test.

9. (currently amended) The private biometric identification system of claim 5 wherein said verification means further includes validation for authorization.

10. (currently amended) The A private biometric information system, comprising:

a body part input means for generating an information signal impressed with characteristics of a body part part;

a transmission means ~~of~~ for transmitting one or more indices from an index generation means to ~~database~~ a database, for transmitting a

~~transmission means of~~ biometric template indexed by said indices to accept ~~point~~ points, ~~transmission means of and for transmitting transformed biometric template~~ templates generated by an information hiding means to an access ~~point~~ point; and

a verification means of said transformed biometric templates ~~template and said~~ biometric ~~template~~.

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11. (currently amended) The private biometric identification system of claim 10 wherein said biometric template ~~is~~ includes at least one said index composed with said information signal.

12. (new) The passive identification system of Claim 1 wherein the index generation means includes applying error correcting codes to reduce errors in the information signal before dynamically generating one or more indices from the information signal.

13. (new) The passive identification system of Claim 13 wherein the error correcting codes include computing roots of a polynomial $\sigma(z)$ over a Galois Field $GF(2^m)$.

14. (new) The passive identification system of Claim 1 wherein the index generation means includes dynamically generating one or more indices from the information signal by generating the one or more indices as hash values using a pre-determined hashing function on the information signal.

15. (new) The passive identification system of Claim 1 wherein the one or more indices generated from the information signal cannot be used to reveal information about the characteristics of the body part included in the information signal.

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16. (new) A method for passive biometric identification, comprising:

generating an information signal impressed with characteristics of a body part;

processing the information signal to remove errors thereby creating a processed information signal;

dynamically generating one or more indices from the processed information signal, wherein one or more indices generated from the information signal cannot be used to reveal information about the body part included in the processed information signal;

obtaining a biometric template using the one or more generated indices, wherein the biometric template includes an identity for the body part; and

verifying the identity for the body part in the biometric template using the one or more generated indices.

17. (new) The method of Claim 16 wherein the step of processing the information signal to remove errors includes processing the information signal with error correcting codes by computing roots of a polynomial $\sigma(z)$ over a Galois Field $GF(2^m)$.

18. (new) The method of Claim 16 wherein the step of dynamically generating one or more indices includes dynamically generating the one or more indices as hash values using a pre-determined hashing function on the processed information signal.

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19. (new) The method of Claim 16 wherein the one or more indices generated from the processed information signal cannot be used to reveal information about the characteristics of the body part included in the information signal

20. (new) The method of Claim 16 wherein the information signal is an information signal impressed with characteristics of a body part including a human eye.

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